

In the Specification:

On page 1, after the title insert the following:

RELATED APPLICATIONS

This is a U.S. National Phase Application under 35 USC 371 of International Application PCT/FR2004/002872, filed on 08 November 2004.

BACKGROUND OF THE INVENTION

On page 3, replace the paragraph beginning on line 32 through page 4, line 2 with the following paragraph:

To achieve the above objects, one aspect of the present invention provides a method of preventing illegitimate use of a network protocol consisting of a stream of data packets. The method comprises calculating a delay that is an increasing function of the bit rate of a stream coming from a machine, and forwarding packets of said stream after said delay.

Applying a delaying function for each packet is sufficient to impede illegitimate use.

The method advantageously includes a step of determining a maximum permissible value ($CPTMAX_N$) of the bit rate for the stream, and a step of destroying waiting data packets if the number of data packets that has arrived exceeds the maximum permissible value ($CPTMAX_N$).

The stream under surveillance by the method of the invention can advantageously be of the signaling protocol type.

When the stream under surveillance is a signaling protocol, the method of the invention can advantageously adapt automatically and, in a normal operation step during which the protocol is used as intended, the packet count retains a value less than a predetermined value and

greater than or equal to 0; in an abnormal operation step during which the system is subject to an attack, the count increases; and, in a subnormal operation step during which the system is used momentarily beyond its limits, the count retains a value less than a predefined value.

An embodiment of the invention applies a delay function, the delay increasing with the bit rate of the stream under surveillance, so that if illegitimate use of the protocol causes the bit rate to exceed a standard bit rate, the delay increases indefinitely, which in practice cuts off the channel that is being used illegitimately without impeding the other streams.

On page 4, delete the paragraph beginning on line 3 through line 7 in its entirety and insert the following:

Another aspect of the invention provides a device for processing a stream of data packets coming from a machine which comprises delay means for delaying the forwarding of the stream coming from said machine by a delay that is an increasing function of the bit rate of said stream.

Another embodiment of the invention provides a telecommunications system adapted to process data traffic comprising at least one stream of data packets coming from a machine, wherein the system includes delay means for delaying the forwarding of at least one stream coming from said machine by a delay that is an increasing function of said bit rate.

Another embodiment of the invention further involves a computer program including instructions for executing the steps of the method of the invention when said program is executed by a computer.

Another embodiment of the invention provides a processor adapted to execute the computer program of the invention.

On page 4, before line 10, insert the following heading:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 4, before line 30, insert the following heading:

DETAILED DESCRIPTION OF THE DRAWINGS

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On page 14, amend the paragraph beginning on line 1 as follows:

The count CPT_N reaching a sufficiently low value indicates that there is no longer any attempt to send illegitimate traffic. The count CPT_N can then be eliminated, and the traffic is then no longer under surveillance. Consequently, calculation of the delay is stopped. This is not essential, however, and the traffic may remain under surveillance indefinitely.

On page 15, amend the paragraph beginning on line 23 as follows:

2) Moreover, all DNS streams may be put under surveillance by associating a stream to be put under surveillance with a ~~count~~ counter, i.e. creating a ~~count~~ counter CPT for each terminal and never eliminating it. A maximum value CPTMAX of CPT is fixed, such as $CPTMAX = 2000$.